

Date: Friday, 8/4/2006 10:00:56 AM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: BEARING
Job Number	: 28090		
Estimate Number	: 10089		
P.O. Number	: N/A	Part Number	: D312123
This Issue	: 8/4/2006 S.O. No. : N/A	Drawing Number	: D3121 REV D
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : PURCHASED PARTS	Drawing Revision	: D
Previous Run	: 27645	Material	: N/A
Written By	: <i>See comment below</i>	Due Date	: 8/11/2006
Checked & Approved By	: <i>06.08.04</i>	Qty:	50 Um: Each
Comment	: Est. A: 04.02.19 New Issue KJ/DS		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	PG	PURCHASING
-----	----	------------



Comment: PURCHASING

Issue P/O: *1778*

Bearing as per Dwg D3121

Possible Supplier: SKF P/N: 61900-2Z or KML P/N: 6900-ZZ

Material release note is required

CL 06/08/04 (50)

2.0	6900ZZ	Bearing
-----	--------	---------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 50.0000 Each(s)
 Bearing

3.0	PACKAGING 1	PACKAGING RESOURCE #1
-----	-------------	-----------------------



Comment: PACKAGING RESOURCE #1

Receive & Inspect for Transit Damage

Ensure Material Release Note is attached

AL 06/08/08 (50)

4.0	QC6	DIMENSIONAL CHECK
-----	-----	-------------------



Comment: DIMENSIONAL CHECK

Inspect diimensions as per Dwg D3121 and attached certification Dwg Rev *D*
06.08.08 (50)

5.0	PACKAGING 1	PACKAGING RESOURCE #1
-----	-------------	-----------------------



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: *5T409*
AL 06/08/09 (50)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA:  Date: 06/08/10

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

Date: Friday, 8/4/2006 10:00:56 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BEARING

Job Number: 28090

Part Number: D312123

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL
Inspection Level 21

9/06/08/10

50

Job Completion



U 8/8/10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

NOTE: Date & initial all entries

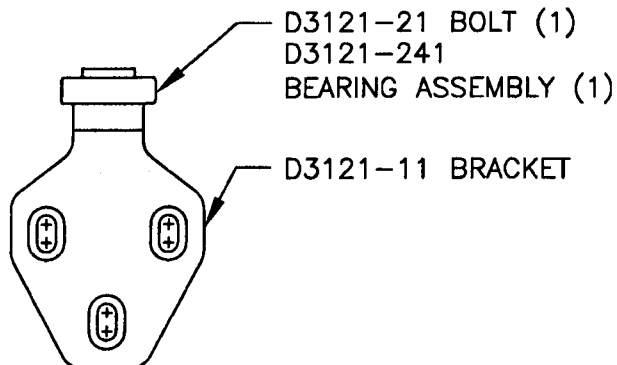
QA: N/C Closed: _____ Date: _____



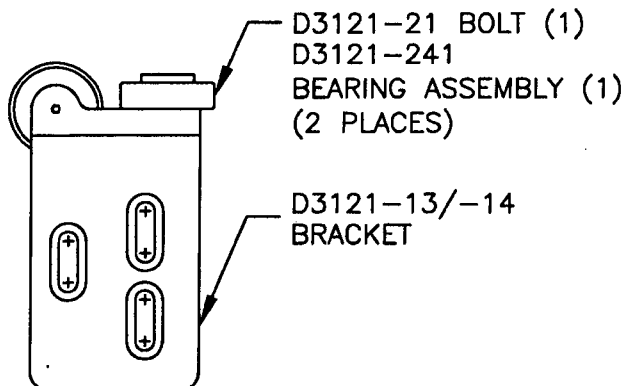
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CHECKED	APPROVED	DRAWING NO.	REV. D
		D3121	SHEET 1 OF 10
DATE		TITLE	SCALE
06.05.17		BRACKET ASSEMBLY	1:2
A	02.04.15	NEW ISSUE	
B	03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146	
C	04.02.17	ADD CLEARANCE; USE -241 BEARING	
D	06.05.17	D3121-25 CAP WAS 1.024, NOW 1.000	

RELEASED

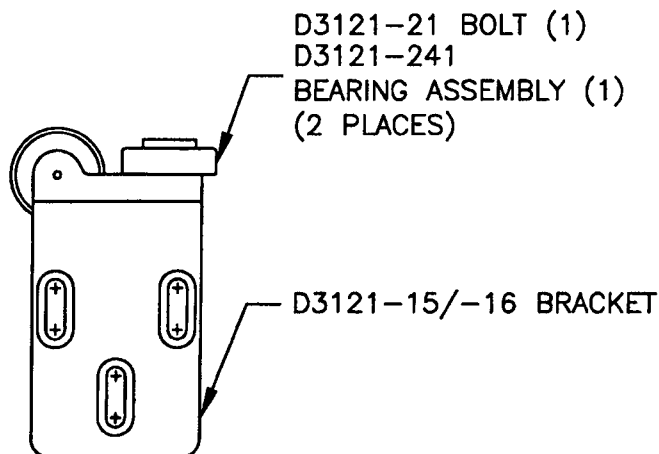
06.06.02



D3121-041 BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23000-33)



D3121-043 (SHOWN) / D3121-044 (OPPOSITE)
BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23000-37/-38)



D3121-045 (SHOWN) / D3121-046 (OPPOSITE)
BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23000-35/-36)

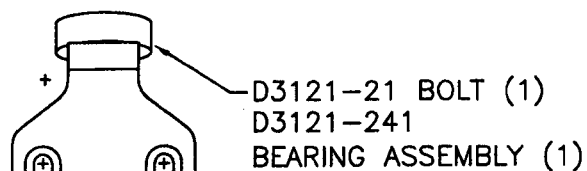
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		D3121	SHEET 2 OF 10
DATE		TITLE	SCALE
06.05.17		BRACKET ASSEMBLY	1:2



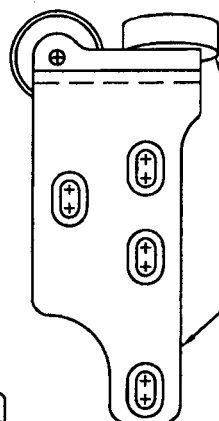
D3121-21 BOLT (1)
D3121-241
BEARING ASSEMBLY (1)

D3121-111 BRACKET

D3121-141 BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23001-01)

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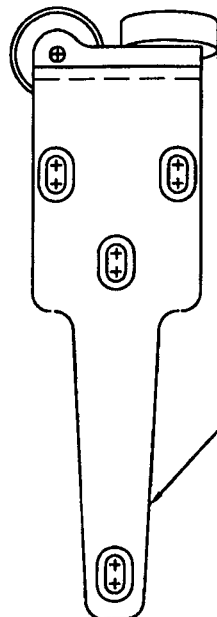
06.06.02



D3121-21 BOLT (1)
D3121-241 BEARING ASSEMBLY (1)
(2 PLACES)

D3121-113/-114 BRACKET

D3121-143 (SHOWN) / D3121-144 (OPPOSITE)
BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23000-03/-04)



D3121-21 BOLT (1)
D3121-241 BEARING ASSEMBLY (1)
(2 PLACES)

D3121-115/-116
BRACKET

D3121-145 (SHOWN) / D3121-146 (OPPOSITE)
BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23000-05/-06)

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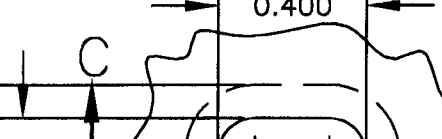
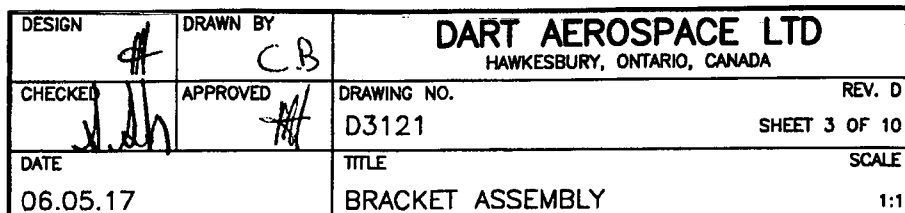


Figure 1 is a schematic diagram of a cross-section of a curved structure, likely a turbine blade or airfoil. The diagram shows a curved upper surface, a flat lower surface, and a central vertical section. Dimensions are indicated by arrows and text: 0.025 (TYP) for the top thickness, 0.050 (TYP) for the central thickness, and 0.032 for the bottom thickness.

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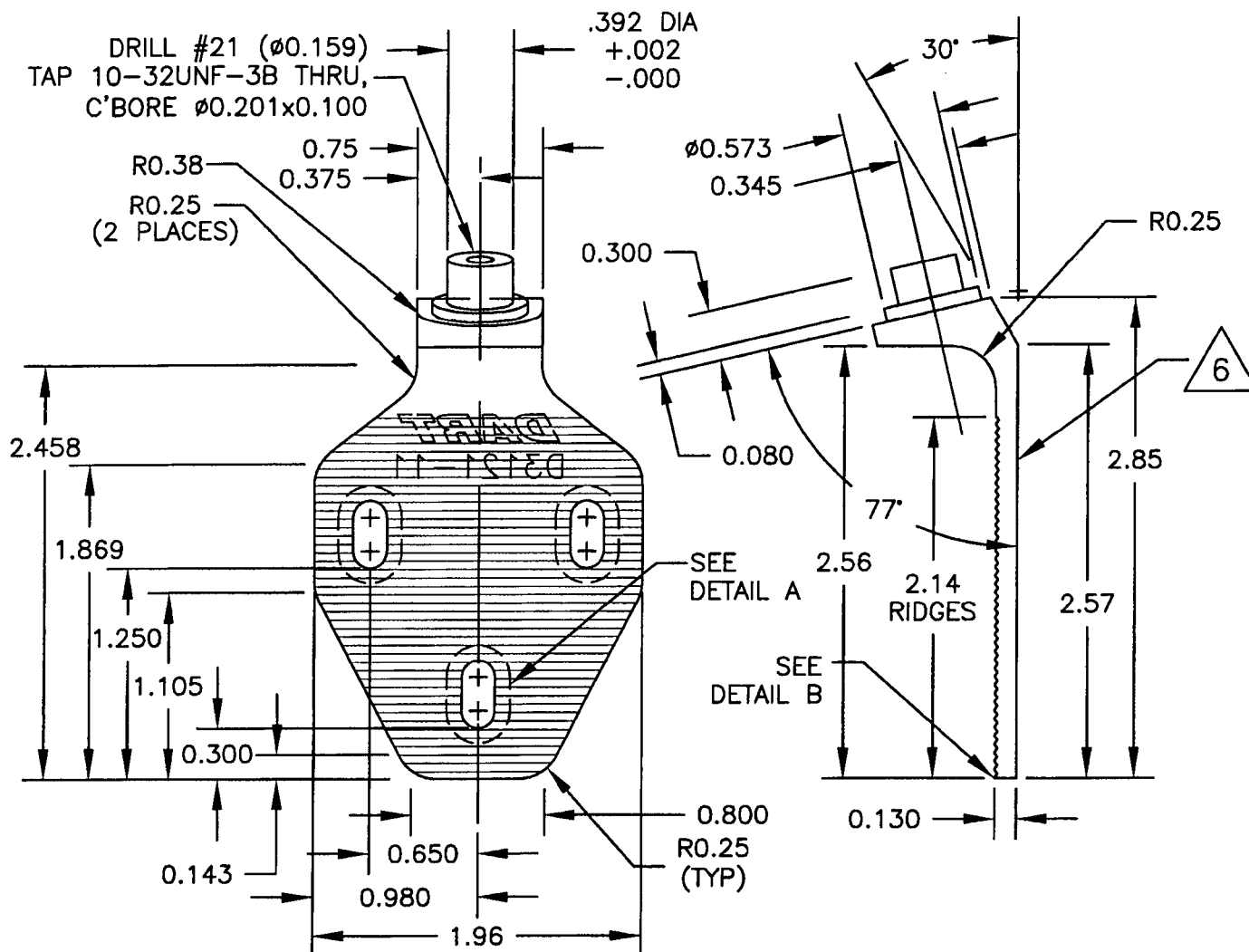
do do n2

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DATE 06.05.17		TITLE BRACKET ASSEMBLY	SCALE 1:1

**D3121-11 BRACKET**

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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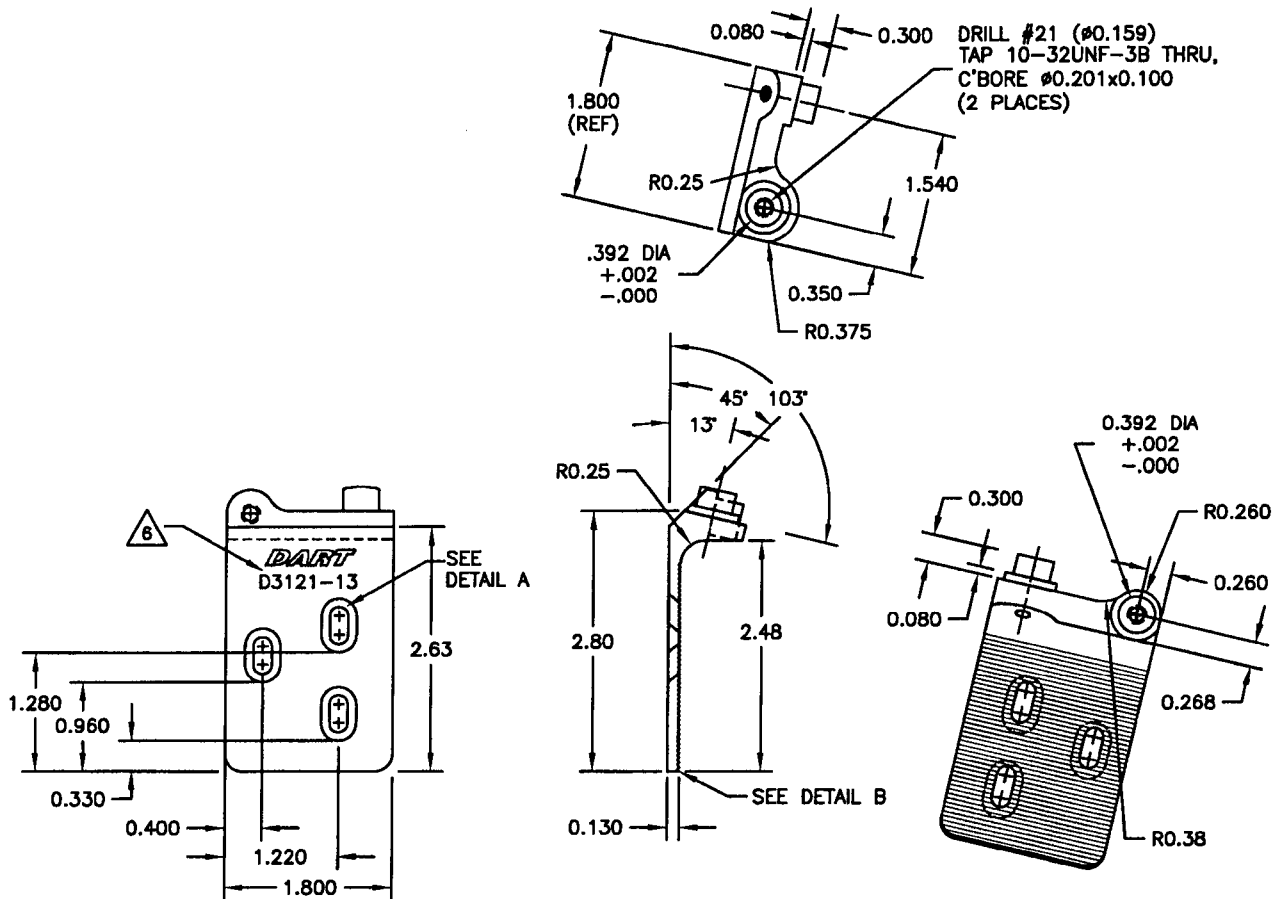
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DATE 06.05.17	TITLE BRACKET ASSEMBLY		SCALE 1:2



D3121-13 BRACKET (SHOWN)
D3121-14 BRACKET (OPPOSITE)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE STRENGTH = 150 ksi
MIN YIELD TENSILE STRENGTH = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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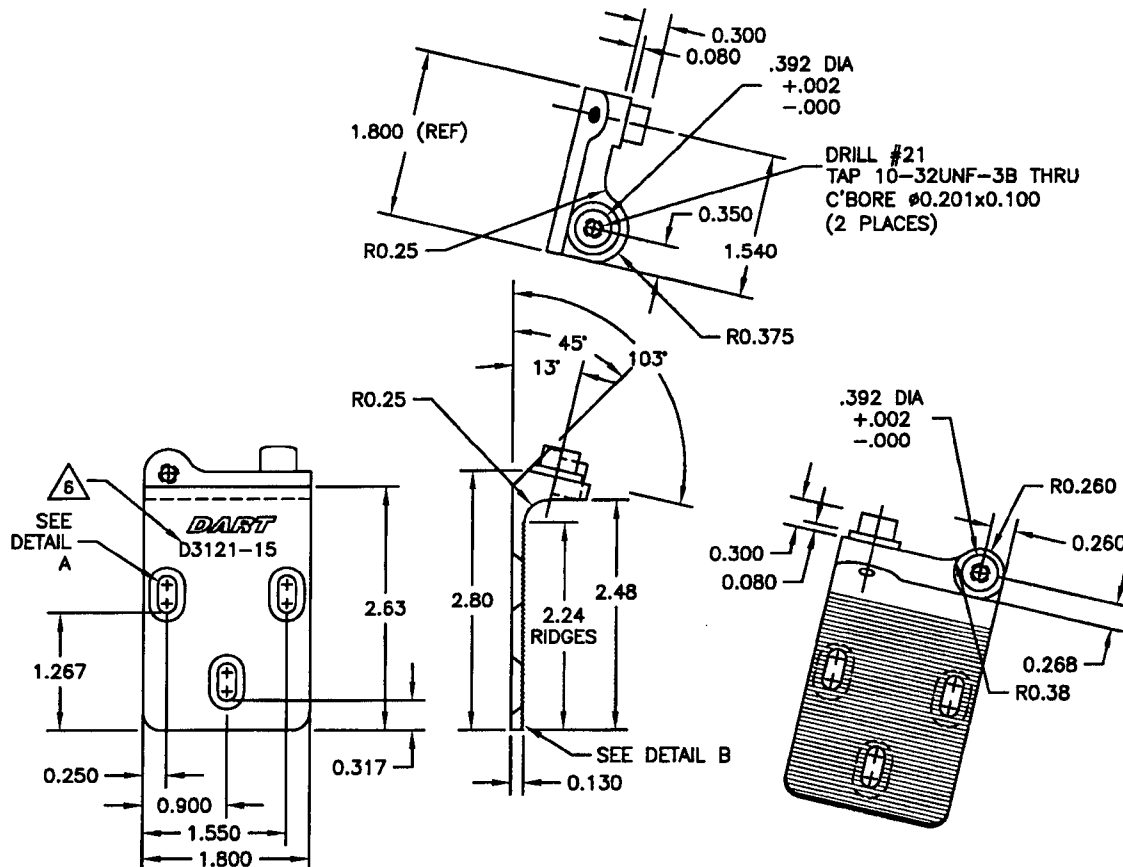
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DATE 06.05.17	TITLE BRACKET ASSEMBLY		SCALE 1:2



D3121-15 BRACKET (SHOWN)
D3121-16 BRACKET (OPPOSITE)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N AND LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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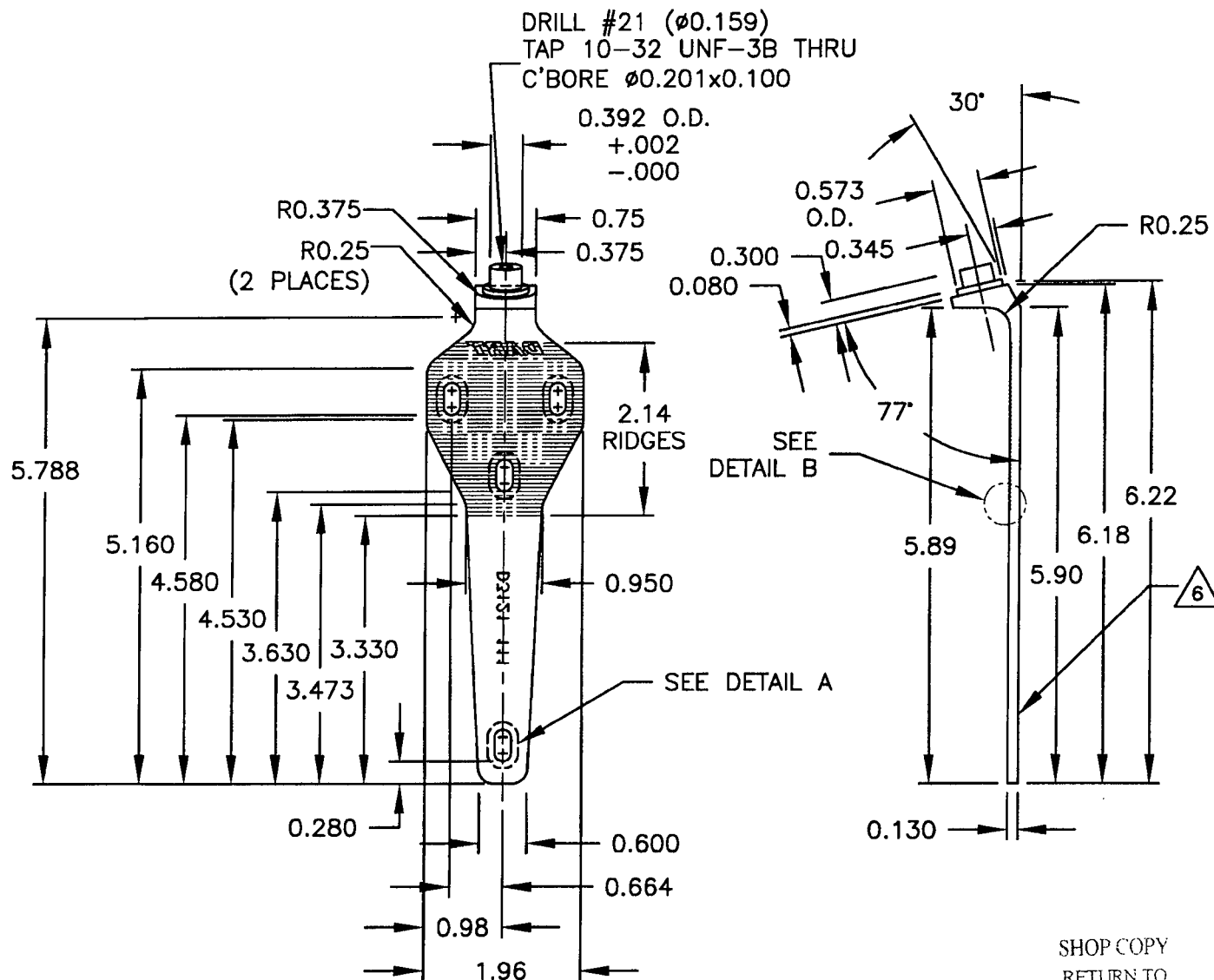
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DATE		TITLE	SCALE
06.05.17		BRACKET ASSEMBLY	1:2

**D3121-111 BRACKET**

- 1) REPLACES PREMIER P/N B32-23001-11
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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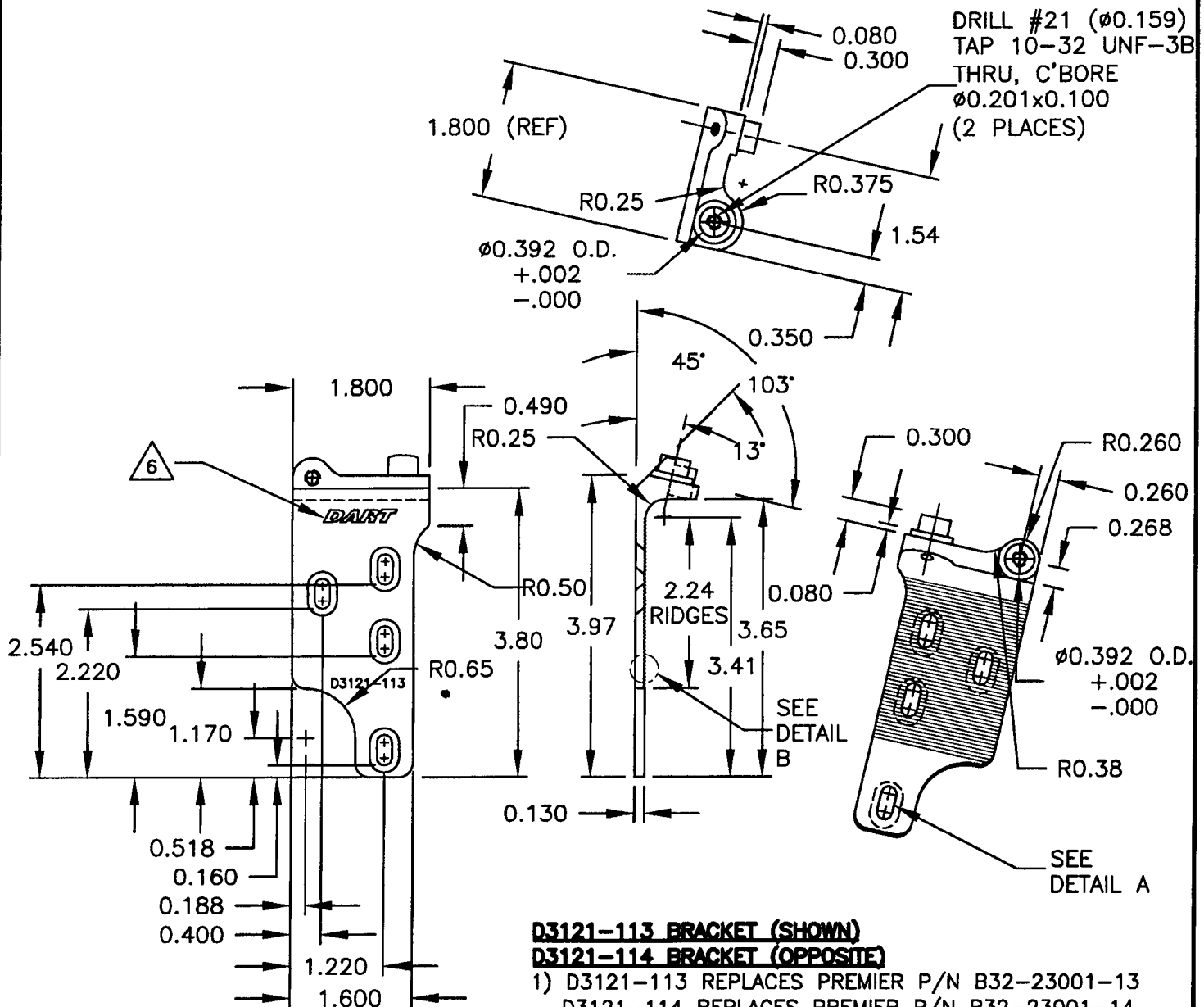
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		D3121	SHEET 8 OF 10
DATE		TITLE	SCALE
06.05.17		BRACKET ASSEMBLY	1:2

**D3121-113 BRACKET (SHOWN)****D3121-114 BRACKET (OPPOSITE)**

- 1) D3121-113 REPLACES PREMIER P/N B32-23001-13
D3121-114 REPLACES PREMIER P/N B32-23001-14
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE STRENGTH = 150 ksi
MIN YIELD TENSILE STRENGTH = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

RELEASE

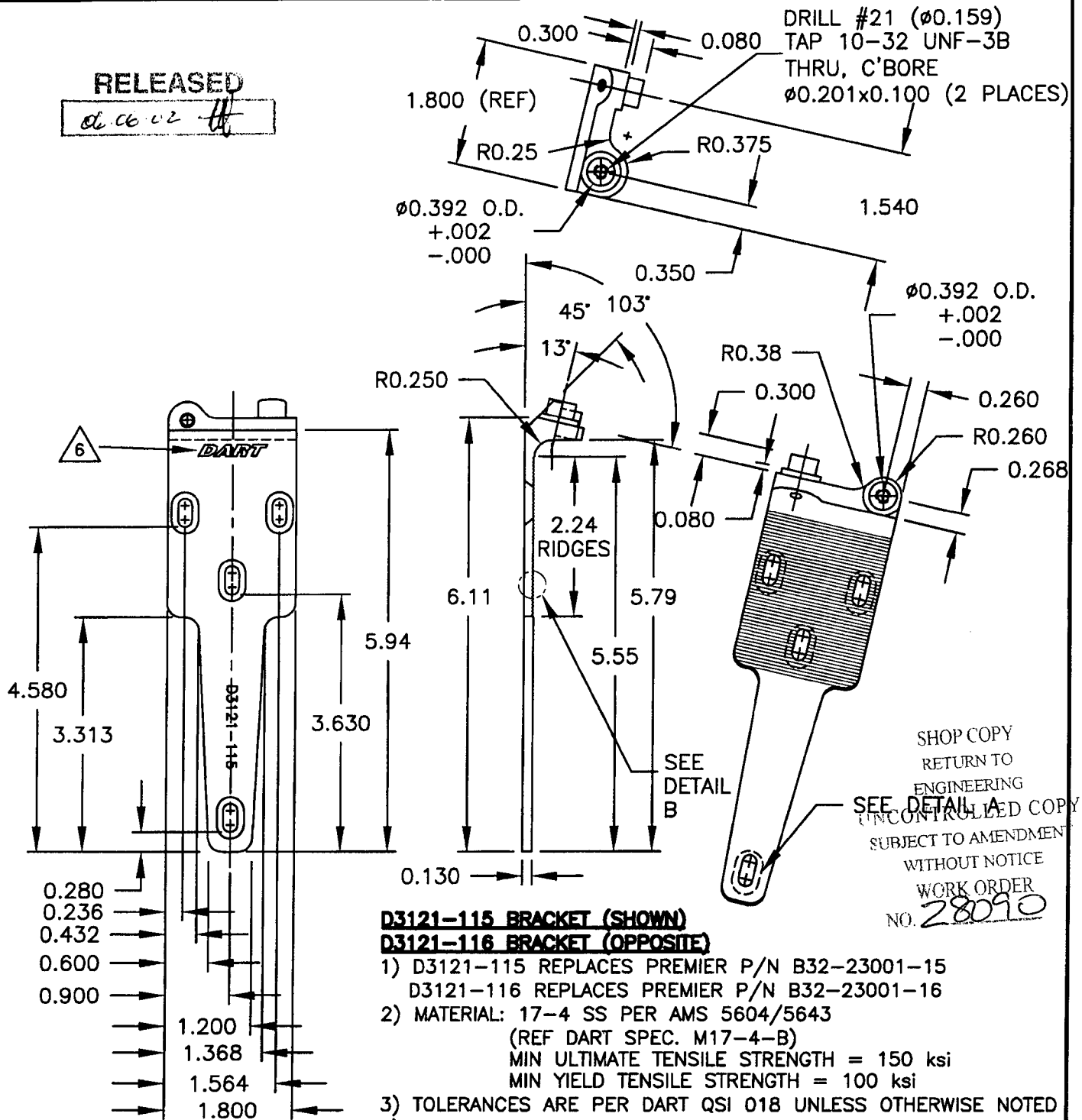
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DATE 04.02.18		TITLE BRACKET ASSEMBLY	SCALE 1:2

06.06.02 *th*



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D3121-115 BRACKET (SHOWN)
D3121-116 BRACKET (OPPOSITE)

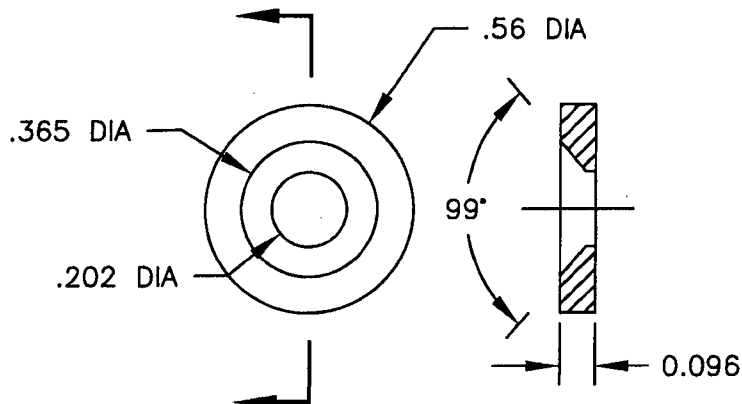
- 1) D3121-115 REPLACES PREMIER P/N B32-23001-15
D3121-116 REPLACES PREMIER P/N B32-23001-16
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE STRENGTH = 150 ksi
MIN YIELD TENSILE STRENGTH = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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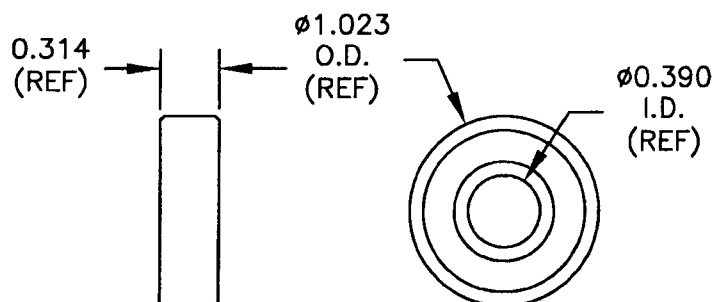
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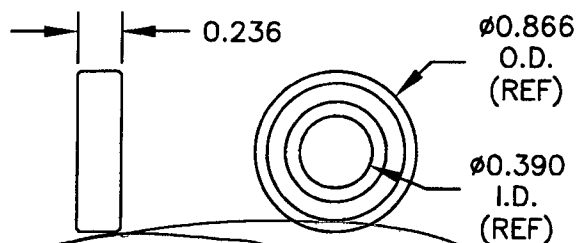
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		D3121	SHEET 10 OF 10
DATE		TITLE	SCALE
06.05.17		BRACKET ASSEMBLY	1:1

**D3121-17 WASHER (SCALE 2:1)**

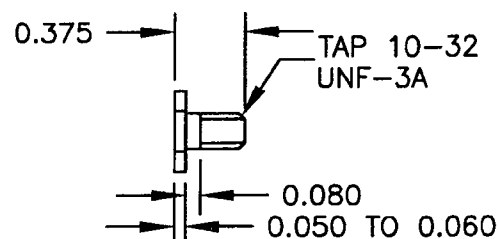
- 1) REPLACES PREMIER P/N B32-23001-17
- 2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015

**D3121-19 BEARING (SCALE 1:1)**

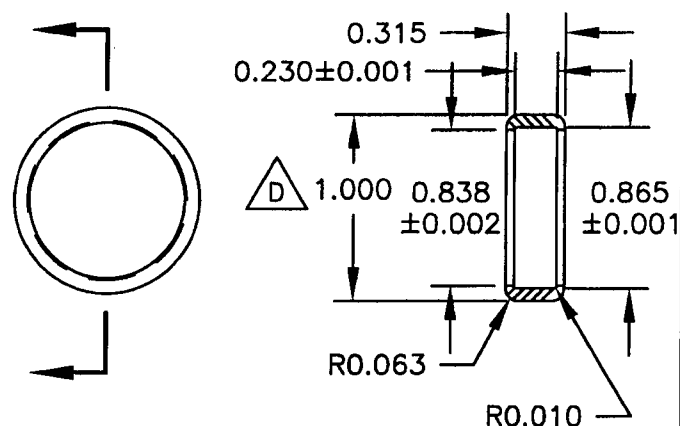
- 1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM FAFNIR P/N 9100KDD
- 2) ALL DIMENSIONS ARE IN INCHES

**D3121-23 BEARING (SCALE 1:1)**

- 1) POSSIBLE SUPPLIER: SKF P/N 61900-2Z OR KML P/N 6900-ZZ
- 2) ALL DIMENSIONS ARE IN INCHES

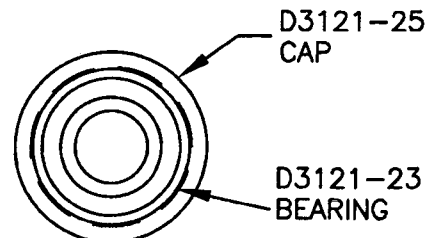
**D3121-21 BOLT (SCALE 1:1)**

- 1) MATERIAL: AISI 303 SS HEX, ANNEALED (REF DART SPEC. M303H0.500)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015

**D3121-25 CAP (SCALE 1:1)**

- 1) MATERIAL: DELRIN ROD, 1.25 (REF DART SPEC. M-DELIN-R1.250)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

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**D3121-241 BEARING ASSEMBLY (SCALE 1:1)**

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General Bearing Service Inc.

0802214
GENERAL BEARING SERVICE
Inc.

www.gbs.ca

386 MAIN ST E, HAWKESBURY, ONTARIO K6A 1A8 (613) 632-9914

ORDER DATE: AUG 8, 2006

GST # R101979094

SOLD TO: DART AEROSPACE LTD.
1270, ABERDEEN STREET
HAWKESBURY, ON.

K6A-1K7

SALE MADE BY: PD
SHIP VIA:

CUSTOMER ORDER #: P000001778

PST LICENCE: 6122-5207

PRODUCT	DESCRIPTION	SOLD	SHIP	PRICE	EXTENSION
6900-22	BALL BEARING	50	✓	4.89	244.50
6900-22	BALL BEARING	50	✓	4.97	248.50
				G.S.T.	29.58

Knurl Bearings
do 6/8/06

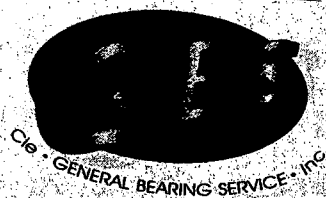
PACKING SLIP NO: 222822-0

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Robert Hardman

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www.gbs.ca

386 MAIN ST E, HAWKESBURY, ONTARIO K6A 1A8 (613) 632-9914

ORDER DATE: AUG 8, 2006

GST # R101979094

SOLD TO: DART AEROSPACE LTD.
1270, ABERDEEN STREET
HAWKESBURY, ON.

K6A-1K7

SALE MADE BY: PD
SHIP VIA:

CUSTOMER ORDER #: PD00001778

PST LICENCE: 6122-5207

PRODUCT	DESCRIPTION	SOLD	SHIP	PRICE	EXTENSION
6800-77	BALL BEARING	50	50	4.89	244.50
6900-77	BALL BEARING	50	50	4.97	248.50
				G.S.T.	29.58

PACKING SLIP NO: 223164-9 **

RECEIVED BY: *Robert Thorne*

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DOIT ETRE IMPRIME PAR ORDINATEUR. SUIR ETRE VALIDE E & O.E.